

Title (en)  
ACTUATOR

Title (de)  
AKTUATOR

Title (fr)  
ACTIONNEUR

Publication  
**EP 3910207 B1 20230726 (EN)**

Application  
**EP 21172647 A 20210507**

Priority  
• JP 2020085365 A 20200514  
• JP 2021069473 A 20210416

Abstract (en)  
[origin: EP3910207A1] An actuator (10) is equipped with a body (18) and a slider (40). Body side rail grooves (90) are formed in side wall portions (22, 23) that constitute the body (18). On the other hand, slider side rail grooves (128) are formed in the slider (40). Body side guide rails (100) and slider side guide rails (140) are provided in the body side rail grooves (90) and the slider side rail grooves (128), respectively. Circular arc grooves (152, 154) serving as ball grooves are formed by body side ball receiving portions (114, 116) of the body side guide rails (100), and slider side ball receiving portions (146, 148) of the slider side guide rails (140).

IPC 8 full level  
**F16C 29/06** (2006.01); **F16C 29/00** (2006.01); **F16C 29/08** (2006.01); **F16C 33/58** (2006.01); **F16C 33/62** (2006.01); **F16H 25/20** (2006.01)

CPC (source: CN EP US)  
**B65G 35/00** (2013.01 - CN); **B65G 47/74** (2013.01 - CN); **F16C 29/005** (2013.01 - US); **F16C 29/063** (2013.01 - EP US); **F16C 29/08** (2013.01 - EP); **F16C 29/082** (2013.01 - US); **F16C 33/585** (2013.01 - EP); **F16C 33/586** (2013.01 - EP); **F16C 33/62** (2013.01 - EP); **F16C 2204/20** (2013.01 - EP); **F16C 2204/70** (2013.01 - EP); **F16C 2240/40** (2013.01 - EP); **F16C 2322/39** (2013.01 - EP); **F16H 2025/204** (2013.01 - EP US); **F16H 2025/2075** (2013.01 - EP)

Citation (opposition)  
Opponent : Festo SE & Co. KG  
• DE 102004050706 A1 20060420 - BOSCH REXROTH MECHATRONICS [DE]  
• DE 2129024 A1 19711216 - SKF IND TRADING & DEV  
• DE 69505961 T2 19990512 - THOMSON IND INC [US]  
• DE 102014119113 B3 20160414 - WEISS GMBH [DE]

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**EP 3910207 A1 20211117**; **EP 3910207 B1 20230726**; CN 113666061 A 20211119; TW 202202748 A 20220116; US 11686345 B2 20230627; US 2021355993 A1 20211118

DOCDB simple family (application)  
**EP 21172647 A 20210507**; CN 202110521868 A 20210513; TW 110116924 A 20210511; US 202117315417 A 20210510